

ABSTRACT

An amplifier system for satellites

The present invention relates to an amplifier system for satellites, in particular for radio-frequency amplifier systems incorporating travelling wave tube amplifiers and used in space repeaters. The amplifier system (1) includes two amplifier modules (A₁, A₂) each having an input and an output, a signal divider (D) having an input, a first output, and a second output, a signal combiner (C) having a first input, a second input and an output. The first output of the divider (D) is connected to the input of the first amplifier module (A₁) via a connection length L_{e1}. The second output of the divider (D) is connected to the input of the second amplifier module (A₂) via a connection length L_{e2}. The output of the first amplifier module (A₁) is connected to the first input of the combiner (C) via a connection length L_{s1}. The output of the second amplifier module (A₂) is connected to the second input of the combiner (C) via a connection length L_{s2}. The connection length satisfies the equation L_{e1} + L_{s1} = L_{e2} + L_{s2} and the connection length L_{s1} is different from the connection length L_{s2}.

Figure to be published: figure 1